1   KEKER & VAN NEST LLP
     ROBERT A. VAN NEST - # 84065
2   rvannest@kvn.com
     CHRISTA M. ANDERSON - # 184325
3   canderson@kvn.com
     DANIEL PURCELL - # 191424
4   dpurcell@kvn.com
     633 Battery Street
5   San Francisco, CA 94111-1809
     Telephone: (415) 391-5400
6   Facsimile: (415) 397-7188

7   KING & SPALDING LLP
     BRUCE W. BABER (pro hac vice)
8   bbaber@kslaw.com
     1180 Peachtree Street, N.E.
9   Atlanta, Georgia 30309
     Telephone: (404) 572-4600
10   Facsimile: (404) 572-5100

11   Attorneys for Defendant
     GOOGLE INC.

12   UNITED STATES DISTRICT COURT

13   NORTHERN DISTRICT OF CALIFORNIA

14   SAN FRANCISCO DIVISION

15
     ORACLE AMERICA, INC.,   Case No. 3:10-cv-03561 WHA
16
               Plaintiffs,   **SUPPLEMENTAL BRIEF REGARDING**
17   **MOTION TO EXCLUDE TESTIMONY OF**
          v.   **DR. KEMERER, PER ECF NOS. 1717 AND**
18   **1729**
     GOOGLE INC.,
19   Trial Date: May 9, 2016
               Defendant.   Dept: Courtroom 8, 19th Fl.
20   Judge: Hon. William Alsup

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1   As ordered by the Court (ECF Nos. 1717 and 1729), Google respectfully submits this

2   brief detailing the results of the deposition of Rohit Chatterjee, taken on April 28, 2016.

3   **I.   INTRODUCTION**

4   In its Motion *in limine* No. 1, Google moved to exclude the so-called "stability" and

5   "centrality" analyses from the report of one of Oracle's experts, Dr. Chris Kemerer.[1] Google

6   explained that these analyses are unreliable because Dr. Kemerer was simply serving as a

7   mouthpiece for undisclosed experts hired by Oracle to work with Dr. Kemerer, and "an expert is

8   not permitted to be the mouthpiece of a scientist in a different specialty." ECF 1557 Opening Br.

9   at 2-3 (quoting *Dura Auto. Sys. of Indiana v. CTS Corp.*, 285 F.3d 609, 614 (7th Cir. 2002)). Dr.

10   Kemerer's deposition testimony confirmed that he lacked the substantive expertise required to

11   properly supervise the work performed by Keystone Strategy ("Keystone"). *Id.* at 4-6. At several

12   points in his deposition, Dr. Kemerer indicated that the support team at Keystone, who had not

13   been disclosed as experts or submitted reports, would be the ones capable of answering

14   substantive questions. Following the hearing on the motion, the Court ordered Oracle to produce

15   for deposition Rohit Chatterjee, a Keystone employee identified by Oracle as having worked with

16   Dr. Kemerer.

17   Mr. Chatterjee's deposition confirmed several points made by Google in its motion

18   directed to Dr. Kemerer's report and at the April 20, 2016 argument on that motion. First, it

19   made clear that the undisclosed experts at Keystone are not merely a support team with which Dr.

20   Kemerer customarily works. This case was Dr. Kemerer's first time working with Mr.

21   Chatterjee. Mr. Chatterjee and others at Keystone are working with several other Oracle experts

22   in the case as well. Second, it revealed that Dr. Kemerer had not in fact attached to his reports all

23   of the scripts that Keystone used to run the tests. Third, it demonstrated that although the tests

24   run by Mr. Chatterjee were represented to have been directed by Dr. Kemerer, in fact, Mr.

25   Chatterjee typically gave Dr. Kemerer a single option, did not suggest any other alternatives that

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27   [1] Google also moved to exclude Dr. Kemerer's use of misleading and contradictory definitions of the term "API," *see* Opening Brief at 6-9, but those opinions are not related to the work performed by Mr. Chatterjee. Google maintains that those opinions should be excluded for the
28   reasons stated in the briefing and at the April 20, 2016 argument on the motion.

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1   could be used, and Dr. Kemerer thereafter approved the Keystone-selected option. Fourth, when

2   Google asked Mr. Chatterjee about the provenance of API package names found in scripts that

3   Dr. Kemerer could not answer questions about, Mr. Chatterjee pointed back to Dr. Kemerer as the

4   reason that the particular package names were selected. This leaves fundamental questions about

5   the analyses unanswered. Finally, Mr. Chatterjee's testimony revealed serious substantive flaws

6   with the analysis that Keystone performed for Dr. Kemerer: Mr. Chatterjee admitted that the

7   "stability" analysis had been designed to capture *any* changes made to the method declarations

8   (even changes that would not impact the use of the method declarations), not just changes that

9   would be visible to or impact app developers (and that could therefore be relevant to "stability").

10   Indeed, Mr. Chatterjee did not even consider whether the data showed that Android APIs were

11   backwards-compatible and thus "stable." In addition, Mr. Chatterjee used different techniques to

12   gather data regarding Android from those he applied to gather data for Java SE. Thus, the so-

13   called "stability" analysis amounts to nothing more than a mechanical counting of changes said to

14   be found in materials that were not even gathered in the same manner for the Java and Android

15   platforms. For all of these reasons, Dr. Kemerer's opinions should be excluded.

16   **II.   DISCUSSION**

17   **A.   Keystone was hired by Oracle to prepare the analyses for multiple experts.**

18   The Court noted at the hearing that it appeared that there were "other tentacles into the

19   Keystone people." Oracle responded that Dr. Kemerer's situation was "just like Dr. Leonard. Dr.

20   Leonard works with Edgeworth Economics. He has got a team there. Dr. Kemerer works with

21   Keystone. He has a team there." Apr. 20, 2016 Hr'g Tr. 127:3-7. The two situations are not

22   remotely alike. Dr. Leonard is a partner with Edgeworth Economics, where his staff works. *See*

23   ECF 1563-7 (Leonard Opening Report) at ¶ 1. Dr. Kemerer, on the other hand, had never worked

24   with Mr. Chatterjee prior to this case. *See* Karwande Declaration in Support of Supplemental

25   Brief ("Karwande Decl.") Ex. 1 (Chatterjee Dep. Tr.) at 80:20-23. Mr. Chatterjee did not know

26   whether Keystone had hired Dr. Kemerer or Dr. Kemerer had hired Keystone. *See id.* at 82:5-12.

27   However, Mr. Chatterjee did know that Keystone had hired another of Oracle's experts in this

28   case, Dr. Schmidt, because Mr. Chatterjee himself "was initially responsible for bringing [Dr.

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1   Schmidt] on board." *Id.* at 84:9-20. Mr. Chatterjee not only worked with Dr. Kemerer to put

2   together his "stability" and "centrality" analyses, but he also helped Dr. Schmidt run the Android

3   build tests that Dr. Schmidt described in his report. *See id.* at 63:23-65:1. Dr. Schmidt came to

4   visit Mr. Chatterjee in Boston at times, and the two also spent a few days together at Orrick's

5   New York offices. *See id.* at 65:2-22. Mr. Chatterjee also acknowledged that another of his

6   colleagues spent some of her time "supporting Professor Jaffe," another of Oracle's experts in this

7   case. *Id.* at 291:11-16.

8   **B.   Not all scripts were attached to Dr. Kemerer's report.**

9   Following the April 20 hearing, counsel for Google requested that Oracle ensure that it

10   had produced all of the materials used by Keystone in conducting the "stability" and "centrality"

11   analyses, in light of its representation at the hearing that Dr. Kemerer had "attached every single

12   script" to his report. Apr. 20, 2016 Hr'g Tr. 116:13-14. Counsel for Oracle made productions on

13   April 21, 22 and 25 in response. *See* Karwande Decl. Ex. 1 (Chatterjee Dep. Tr.) at 92:11-23; *id.*

14   at 99:5-9; *id.* at 100:10-15. Although many of the scripts produced had been provided in hard

15   copy form with Dr. Kemerer's report, Mr. Chatterjee had also used scripts that were not provided

16   with Dr. Kemerer's report as inputs to the "centrality" analysis. Mr. Chatterjee admitted that he

17   wrote these scripts in the Python language. *See id.* at 46:12-19. Python is a different

18   programming language than the languages used for the scripts attached to Dr. Kemerer's report.

19   And the header on many of the Python files reads "Copyright (C) 2015 KEYSTONE

20   STRATEGY - All Rights Reserved." Mr. Chatterjee conceded that the Python scripts were inputs

21   to his use of the Understand and NetworkX tools. *See id.* at 136:19-138:1 (Understand); 141:7-18

22   (NetworkX). He also confirmed that Python scripts had not been provided with Dr. Kemerer's

23   report. *See id.* at 208:12-21. Mr. Chatterjee suggested at his deposition that he simply

24   implemented "default" settings for the Understand program, *see id.* at 154:15-20. Even if true,

25   that would not matter, because Mr. Chatterjee concedes that Understand has settings that can be

26   varied, *see id.* at 229:20-24, and Dr. Kemerer's description of the use of the Understand program

27   for purposes of the "centrality" analysis is so cursory that one could not discern what settings

28   were purportedly used from a review of his report. *See* ECF 1560-10 (Kemerer Opening Report)

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at ¶¶ 149-152.

C. Dr. Kemerer did not exercise supervision of Mr. Chatterjee's analysis, which is substantively flawed.

Mr. Chatterjee's deposition demonstrated that the "stability" and "centrality" analyses conducted by Keystone were neither properly supervised by Dr. Kemerer nor reliable. For example, the key scripts underlying Dr. Kemerer's "stability" analysis contains reference to 200 different API package names in the script used to analyze the Android platform and 248 different API package names in the script used to analyze the Java platform. Because there are only 166 API packages in Java SE 5, *see* Karwande Decl. Ex. 2 (Kemerer Dep. Tr.) at 183:4-7; *id.,* Ex. 1 (Chatterjee Dep. Tr.) at 211:17-24, this naturally raised questions about why so many package names were found in the script, and so Google asked Dr. Kemerer about it at his deposition. As explained in Google's opening brief, Dr. Kemerer could not explain how these packages were selected, and said he would have to ask the "technical team" if he wanted to find that information. ECF 1557 Opening Br. at 6:2-11; Karwande Decl. Ex. 2 (Kemerer Dep. Tr.) at 178:3-179:20; *id.* at 182:5-183:18. Yet when Google asked Mr. Chatterjee, the member of the "technical team" who wrote that script, why those particular packages were chosen, Mr. Chatterjee could say only that Dr. Kemerer told him to use those packages. *See id.,* Ex. 1 (Chatterjee Dep. Tr.) at 212:15-25. This circular finger-pointing leaves Dr. Kemerer's testimony without any foundation regarding the choice to use so many different package names in the scripts. As a result, Dr. Kemerer has no explanation for the choice of package names in the script that was used to analyze the Java platform, and on which he bases his "stability" analysis.

Moreover, the methods that Mr. Chatterjee used to obtain the data used as inputs to the "stability" analysis differed as between Java and Android, creating questions as to whether some of the differences allegedly shown by the analysis could have arisen from the different methods used to gather the underlying data. For the Java platform files, Mr. Chatterjee elected to obtain the data he used by running the Javadoc tool on the actual source code. Javadoc takes source code written in Java in and outputs documentation for that code. *See id.* at 162:1-13. For the Android files, in contrast, Mr. Chatterjee did not use the Javadoc tool on the Android source code.

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1   Indeed, although the Android source code that he examined was publicly available and written in

2   the Java programming language, Mr. Chatterjee apparently did not even investigate the possibility

3   of gathering the data for Android using the same method he used for the Java platform. *See id.* at

4   163:12-164:1. Instead, he chose to use online documentation in .xml and .txt formats found on

5   the Android website as the input for his analysis. *See id.* at 160:8-17. Mr. Chatterjee suggested

6   that this difference in how he obtained the data to be used for the two platforms resulted from a

7   choice made by Dr. Kemerer; however, Mr. Chatterjee conceded that he could not recall giving

8   Dr. Kemerer a second option. *See id.* at 226:14-227:10. Thus, the "choice" supposedly made by

9   Dr. Kemerer was anything but. Indeed, Dr. Kemerer claimed at deposition that the tools that

10   were used in the analysis were selected after his technical support team "completed a review of

11   available tools that [he] asked them to do." *id.,* Ex. 2 (Kemerer Dep. Tr.) at 93:22-94:1. But

12   when asked whether he had looked for tools that were designed to measure changes in APIs, Mr.

13   Chatterjee said that he didn't remember if he actually looked for tools of that sort or not. *Id.,* Ex.

14   1 (Chatterjee Dep. Tr.) at 287:14-288:12. Nor was he "fully aware" of whether he could have

15   simply found the changes made to Android APIs on the Android website, though he had "seen

16   reports that probably do that." *See id.* at 247:11-15.

17   A similar process was followed as part of Dr. Kemerer's alleged direction as to the use of

18   Understand for the "centrality" analysis. Dr. Kemerer testified that he had never used Understand

19   prior to this case. *Id.,* Ex. 2 (Kemerer Dep. Tr.) at 93:12-13. In fact, he was not even certain that

20   he had heard of it prior to this case. *Id.* at 94:6-8. Nevertheless, when asked how he had

21   determined the settings to use for Understand, Mr. Chatterjee testified that he gave Dr. Kemerer a

22   copy of the Python script containing the schema for Understand and pointed him to some

23   documentation. *See id.,* Ex. 1 at 156:10-157:14. Dr. Kemerer, who is not a computer

24   programmer and had never used Understand before, asked him some questions that Mr.

25   Chatterjee could not remember, and then "a couple of days later, he asked me, Okay, let's use the

26   Understand schema that you showed me." *Id.* at 157-15:21. Far from demonstrating that Dr.

27   Kemerer exercised supervision over the methodology used by Keystone in conducting the

28   analysis, Mr. Chatterjee's testimony shows that, as with the "stability" analysis, for the

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1   "centrality" analysis Mr. Chatterjee effectively chose the methodology to be used without the

2   required supervision or substantive technical input by Dr. Kemerer.

3   Mr. Chatterjee also revealed at deposition that the tools he had used for the "centrality"

4   analysis could have been used to analyze the non-Java code in the Android platform as part of

5   that analysis. *See id.* at 238:2-10. But Dr. Kemerer's report noted that he considered "only Java

6   material from the [Android] source code." ECF 1560-10 (Kemerer Opening Report) at ¶ 150.

7   Because there is more than just Java code in the Android platform, taking into account the entire

8   Android platform could end up presenting a more complete picture of what is supposedly

9   "central" to the platform. However, when asked whether Dr. Kemerer was made aware of the

10 possibility that he could have analyzed non-Java code found in Android as well, Mr. Chatterjee

11 testified: "I don't remember one way or the other telling him specifically that we could do more.

12 I pointed him to what's the Understand website, SciTools website, and he made the choice of

13 using the Java files for his analysis." Karwande Decl. Ex. 1 at 239:2-10.

14   Finally, the testimony by Mr. Chatterjee revealed that the "stability" analysis was not

15 designed to capture changes that would actually be visible to and impact developers. Mr.

16 Chatterjee repeatedly testified that such a concept was not taken into account in determining what

17 sort of changes would count for purposes of the methodology Keystone used. For example, he

18 admitted that he did not know from the data he collected whether Android APIs are backwards

19 compatible. *See id.* at 59:8-19. He also conceded that he did not have expertise in deciding what

20 sorts of changes would matter to app developers. *See id.* at 60:21-61:2. When asked whether he

21 had performed any investigation to see whether the changes measured would cause an app to no

22 longer work, he said that he was not asked to do that, and could "guess that it would have an

23 impact on the functionality of the particular app" but that would be "a pure sort of speculation."

24 *Id.* at 183:12-184:2. Although counsel for Oracle argued at the April 20 hearing that Dr. Kemerer

25 had the expertise to develop a methodology in this case based on a set of metrics he wrote about

26 in a mid-1990s paper, Apr. 20, 2016 Hr'g Tr. 114:12-16, counsel for Oracle conceded that "he

27 didn't apply that set of metrics in this case." *Id.* at 114:23-24. Mr. Chatterjee's testimony reveals

28 that the "metrics" applied for his so-called "stability" analysis are nothing more than a simple

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1   counting of changes that have not been shown to make any difference to the platform or to app

2   developers. Moreover, although Dr. Kemerer purports to compare such changes as between Java

3   and the Android platform, he did not use the same tools to gather the data that serves as the input

4   to his methodology. These fundamentally unsound practices should lead to the exclusion of the

5   analyses conducted by Keystone.

6   Thus, although the "stability" and "centrality" analyses were supposedly directed by Dr.

7   Kemerer, Mr. Chatterjee's testimony indicates that Dr. Kemerer rubber-stamped whatever

8   methodology the undisclosed experts at Keystone chose to select and apply based on their own

9   judgment. As explained in Google's opening brief, Dr. Kemerer does not have the expertise

10 necessary to oversee the work of these separate undisclosed experts, and Mr. Chatterjee's

11 description of Dr. Kemerer's supposed oversight demonstrates that amply. Dr. Kemerer's

12 testimony parroting the "stability" and "centrality" analyses prepared by Keystone should be

13 excluded. *See Dura Auto.*, 285 F.3d at 615 ("It is apparent … that [the expert's] assistants did not

14 merely collect data … or otherwise perform routine procedures, and that [the expert] himself

15 lacks the necessary expertise to determine whether the techniques were appropriately chosen and

16 applied."); *see also ZF Meritor, LLC v. Eaton Corp.*, 696 F.3d 254, 292-293 (3d Cir. 2012)

17 (affirming lower court's decision to exclude expert testimony where the expert did not know (1)

18 the identity and qualifications of the person(s) who prepared the analyses or (2) the methodology

19 used to create the analyses). This is particularly true in light of the fact that Keystone conducted

20 these analyses solely for the purposes of litigation. *Dura Auto.*, 285 F.3d at 615 ("[W]e must be

21 realistic about expert evidence: [The undisclosed expert] was hired to provide evidence favorable

22 to [plaintiff]; so any margin of discretion in the construction of the [] model could be expected to

23 be exploited to [plaintiff's] benefit. That discretion was exercised not by [the testifying expert]

24 but by [the undisclosed experts], for it was they who constructed the model, and the [process] by

25 which they did so is beyond the scope of [the expert's] expertise."); *see also In re Imperial Credit*

26 *Indus., Inc. Sec. Litig.*, 252 F. Supp. 2d 1005, 1012 (C.D. Cal. 2003) ("Federal Rules of Evidence

27 702 and 703 permit an expert to rely upon 'facts and data.' The rules do not permit an expert to

28 rely upon excerpts from opinions developed by another expert for the purposes of litigation.").

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1   **III.   CONCLUSION**

2   For the foregoing reasons, Google respectfully submits that its motion *in limine* should be

3   granted and Dr. Kemerer's "stability" and "centrality" analyses should be excluded.

4   Dated: May 1, 2016   KEKER & VAN NEST LLP

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6   By: s/ Robert A. Van Nest
                                                            ROBERT A. VAN NEST
7   CHRISTA M. ANDERSON
                                                            DANIEL PURCELL
8
                                                            Attorneys for Defendant
9   GOOGLE INC.

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